

TWO GENERA OF MITES NEW TO THE AUSTRALIAN FAUNA (ACARI: ACARIDAE)

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Abstract

Mycetoglyphus fungivorus Oudemans is recorded from Australia for the first time. This species is found in decaying organic matter but is also capable of damaging crop plants. *Kuzinia laevis* (Dujardin) is recorded from Australia and New Zealand, in association with the introduced bumble bee *Bombus terrestris* (L.), where it feeds on pollen.

Introduction

The documented Australian fauna of the mite family Acaridae includes 17 genera (Halliday 1998). Recent study of the Australian fauna has revealed the presence in collections of specimens of a further two genera. The purpose of this note is to provide details of these collections, so that the genera concerned can be included in a larger study of the Australian Astigmata that is currently in progress.

Mycetoglyphus fungivorus Oudemans

Material examined. SOUTH AUSTRALIA: 2 ♀♀, Nuriootpa, 12.x.1979, in worm rearing container, B. Linke coll. (in South Australian Museum, Adelaide).

Comments. *Mycetoglyphus fungivorus* is a saprophytic mite that has been found in mushroom culture, decaying vegetables, decaying wood debris, beneath stacks of hay and straw and in the nests of moles and ants (Hughes 1976, Kazhdaya 1996). It also appears to be capable of occasionally damaging crop plants (Nakao 1989). It has not been recorded from Australia before, with previous records from England, USA, South Africa, former USSR, Europe (Zakhvatkin 1941, Hughes 1976), China (Li 1999) and Japan (Nakao 1989). The species may be recognised according to the description and illustrations in Hughes (1976). *M. fungivorus* is now recorded from Australia on the basis of the specimens detailed above.

Kuzinia laevis (Dujardin)

(Fig. 1)

Material examined. TASMANIA: 14 deutonymphs, North Hobart, 15.iii.1994, on bumble bee, T. D. Semmens coll. (in Australian National Insect Collection, ANIC); 10 ♀♀, 3 ♂♂, Warra Long Term Ecological Research Site (Arve Valley, west of Geeveston), 12.iv.2001, R. Buttermore coll. (ANIC). NEW ZEALAND. 3 ♀♀, Hastings, Zonda Resources Ltd., 7.i.2000, in bumble bee breeding colonies, L. Rako coll. (in New Zealand Arthropod Collection, Auckland). POLAND. 4 ♀♀, 2 ♂♂, Poznan, 13.iii.1979, in lab culture, W. Chmielewski coll. (ANIC); 6 ♀♀, 3 ♂♂, Poznan, 14.vi.1973, W. Chmielewski (ANIC).

Comments. *Kuzinia* Zakhvatkin, 1941, is a small genus of about 8 species of mites usually associated with bees (Delfinado and Baker 1976, Volgin 1978,

Putatunda *et al.* 1984). Most species are known only from the deutonymph (hypopus) stage. The best known species is *K. laevis* (Dujardin), which occurs in the nests of bumble bees in Europe, including *Bombus terrestris* (L.), where it feeds on pollen (Zakhvatkin 1941, Chmielewski 1991). *B. terrestris* first appeared in Australia (Tasmania) in 1992, where it appears to have been accidentally introduced from New Zealand (Semmens *et al.* 1993), and where it now appears to be well established (Semmens 1996). Its commensal mite *Kuzinia laevis* is now recorded from Australia and New Zealand for the first time. It appears that *K. laevis* was accidentally introduced into both Australia and New Zealand from Europe in company with *B. terrestris*.

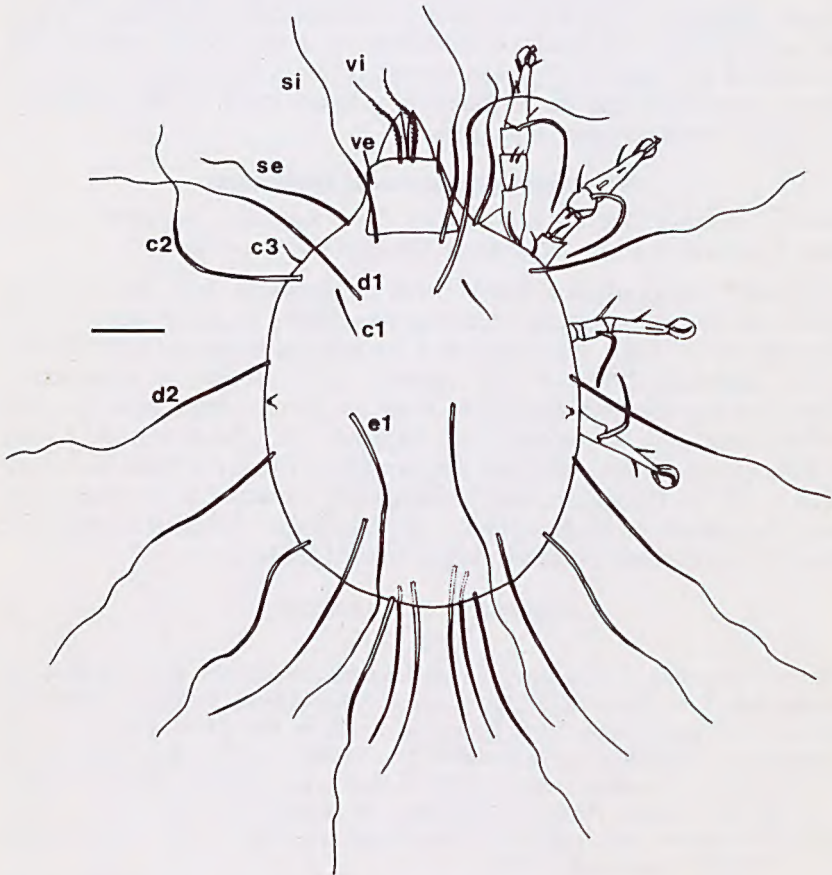


Fig. 1. *Kuzinia laevis*, Tasmania, dorsum of female. Scale bar = 100 μ m.

Deutonymphs of *K. laevis* from Tasmania were identified from the descriptions and illustrations of Zakhvatkin (1941) and Delfinado and Baker (1976). The adult female of *Kuzinia* may be distinguished from other genera of Acaridae by its external vertical setae *ve* inserted slightly behind the level of the internal verticals *vi*; internal scapular setae *si* clearly longer than external scapulars *se*; dorsal idiosomal seta *dl* displaced forward close to *cl* and much longer than *cl*; *cl* long enough to reach the base of *dl*; and all dorsal idiosomal setae except *cl* and *c3* greatly elongated (Fig. 1; notation after Griffiths *et al.* 1990). *Kuzinia* is also distinctive in having a longitudinal ridge on the ventral surfaces of tarsi I and II (Fain 1986). Examined specimens of *K. laevis* from Australia and New Zealand were found to be indistinguishable from reference specimens from Poland.

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